

## Summary

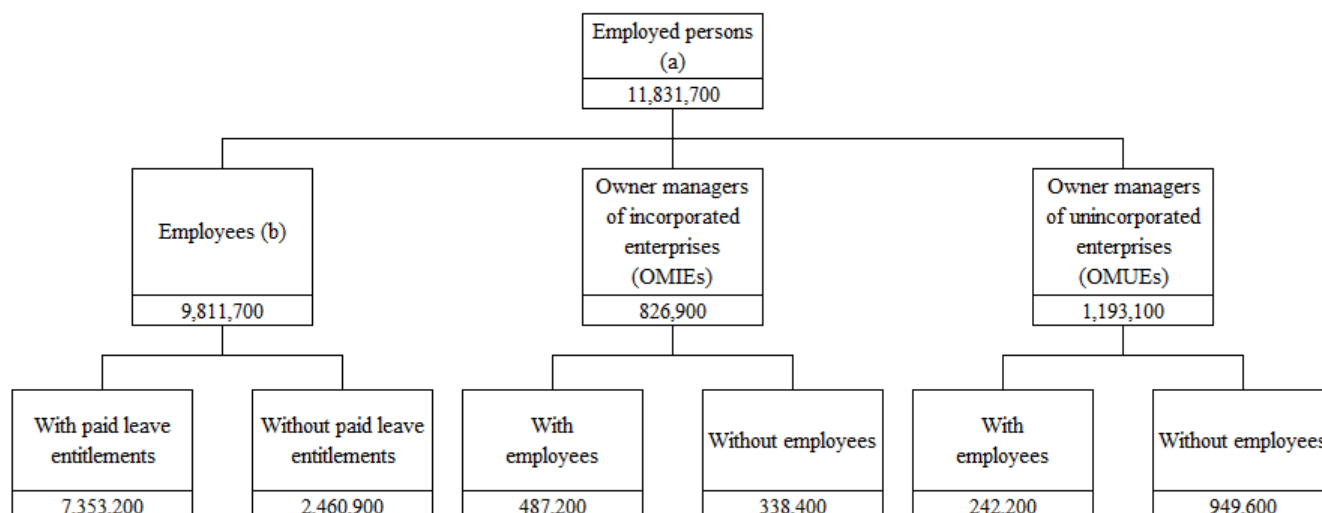
### Key Findings

#### KEY FINDINGS

The Characteristics of Employment Survey presents information on all employed persons according to their status of employment. The framework below classifies jobholders to a status of employment on the basis of their main job, that is, the job in which they usually worked the most hours. The status of employment category groups are:

- Employees;
- Owner managers of incorporated enterprises (OMIEs); and
- Owner managers of unincorporated enterprises (OMUEs).

Employees are then further classified according to whether they had paid leave entitlements, that is, whether they had paid sick and/or paid holiday leave, while OMIEs and OMUEs are further classified according to whether they had employees.



(a) Excludes persons who were contributing family workers in their main job.

(b) Prior to 2014, 'employees' comprised both Employees and OMIEs, in the Labour Force and Employee Earnings, Benefits and Trade Union Membership (EEBTUM) releases.

Information is also presented on independent contractors who may be in the Employees, OMIEs or OMUEs groups. They are identified through a series of questions about their work and remuneration arrangements.

#### OVERVIEW

##### Employed Persons

- In August 2016, there were an estimated 11.8 million employed persons aged 15 years and over, of which 54% were males. (Datacube 3)
- An estimated 7.9 million (67%) employed persons worked full-time in their main job. (Datacube 4)
- Almost half (46%) of all employed persons usually worked 35–44 hours per week. Males comprised 60% of these persons. (Datacube 5)

##### Earnings

- In August 2016, the mean weekly earnings of employees and OMIEs in all jobs was \$1,223 compared with \$1,202 in 2015. (Datacube 2)
- For males, the mean weekly earnings in all jobs was \$1,420 and for females it was \$1,007.
- The median weekly earnings in all jobs in 2016 was \$1,012 (\$1,200 for males and \$880 for females). (Datacube 9)

## **Independent Contractors**

- There were approximately 1 million independent contractors in their main job in August 2016. (Datacube 14)
- Approximately 9% of all employed persons were independent contractors, and almost three quarters (72%) of all independent contractors were males.
- More than half (55%) of independent contractors were aged 45 years and over.

## **Trade Union Members in their Main Job**

- For employees and OMIEs;
  - Trade union membership has steadily declined over recent years, with 2016 having the lowest proportion in the history of the series (15%). (Datacube 16)
- For all employed persons;
  - 13% (1.6 million) were trade union members in connection with their main job. (Datacube 18)
  - The Education and training and Public administration and safety industry divisions had the highest proportion of trade union members in main job (both 31%).

## **Persons Who Found Their Job Through a Labour Hire Firm/Employment Agency**

- In August 2016, there were 600,800 persons (5% of all employed persons) who had found their job through a labour hire firm/employment agency, of which 59% were males. (Datacube 20)
- Of those persons who had found their main job through a labour hire firm/employment agency, 22% were paid by a labour hire firm/employment agency.

# **Employed Persons**

## **EMPLOYED PERSONS CHARACTERISTICS**

In August 2016, there were 11.8 million employed persons, of whom 9.8 million were employees, 826,900 were owner managers of incorporated enterprises (OMIEs) and 1.2 million were owner managers of unincorporated enterprises (OMUEs). (Datacube 3)

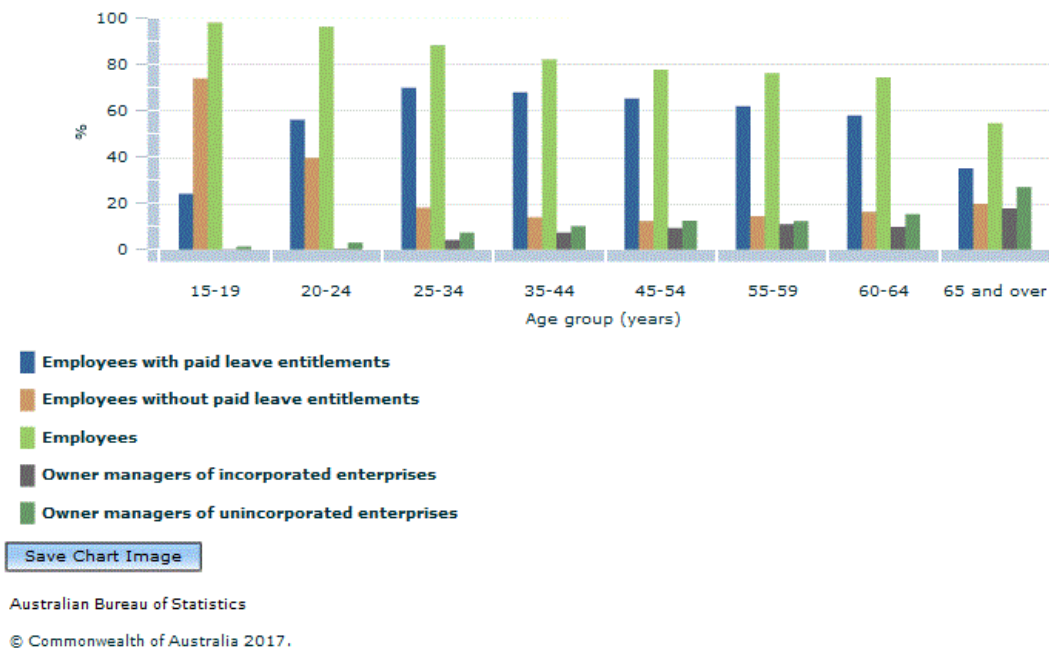
Characteristics of employed persons were:

- 87% of all employed persons worked in the private sector, of whom 56% were male; (Datacube 6)
- 20% of all employed persons had been with their current employer/business for less than 1 year, 34% had been with their current employer/business for 1–5 years and 11% had been with their current employer/business for 20 years or more;

## **STATUS OF EMPLOYMENT AND AGE**

Younger persons were more likely to be employees rather than OMIEs or OMUEs. As age increases, generally the proportion of employees decreases, while the proportion of OMIEs and OMUEs increases. However, being an employee was the most common form of employment for all employed persons for all age ranges.

Status of Employment in Main Job, Employed Persons by Age



Source(s): Characteristics of Employment, Australia, August 2016

- Of employed persons aged 15–24, 97% (1.7 million) were employees; 0.4% (7,200) were OMIEs and 3% (46,000) were OMUEs; (Datacube 6)
- Of employed persons aged 35–54, 80% (4 million) were employees, 8% (428,800) were OMIEs and 11% (581,000) were OMUEs;
- Of employed persons aged 65 and over, 55% (247,700) were employees, 18% (81,000) were OMIEs and 27% (122,300) were OMUEs; and
- Almost half of employed males (49%) (136,600) aged 65 years and over were either OMIEs or OMUEs.

## LEAVE ENTITLEMENTS

In August 2016, there were 9.8 million employees, of which 7.4 million (75%) had paid leave entitlements, while 2.5 million (25%) were without paid leave entitlements. (Datacube 6)

The industry divisions with the most employees without paid leave entitlements were Accommodation and food services (20%) and Retail trade (15%).

The occupation group with the most employees without paid leave entitlements were Labourers and Community and personal service workers (both 20%).

As a percentage of each age group, 15–19 year olds had the highest proportion of employees without paid leave entitlements (75%). 20–24 year olds had the next highest proportion (41%) followed by those aged 65 and over (36%).

## LOCATION

New South Wales had the highest number of employed persons (3.8 million) followed by Victoria (3 million) and Queensland (2.3 million). Northern Territory had the lowest number of employed persons (123,000). (Datacube 4)

Northern Territory had the highest proportion of full-time workers in their main job (80%) followed by Australian Capital Territory (72%). Tasmania and South Australia had the lowest proportion of full-time workers (both 63%).

## INDUSTRY OF MAIN JOB

The industry division employing the most persons was Health care and social assistance (13%) followed by Retail trade (10%). Of the 5.5 million employed females, approximately 21% worked in the Health care and social assistance. In contrast, of the 6.4 million employed males, the Construction industry division employed the most males (15%). (Datacube 5)

The Health care and social assistance industry division employed the highest proportion of females (78%) followed by the Education and training industry division (71%). The industry division employing the highest proportion of males was Construction (88%) followed by Mining (85%).

## OCCUPATION OF MAIN JOB

The occupation group with the most employed persons was Professionals (24%) followed by Technicians and trades workers (14%). (Datacube 5)

The occupation group with the highest proportion of males was Machinery operators and drivers (91%) followed by Technicians and trades workers (85%). In contrast, the occupation group with the highest proportion of females was Clerical and administrative workers (74%) followed by Community and personal service workers (69%).

## **EDUCATION**

There were 8 million (67%) employed persons who had a non-school qualification. Of these: (Datacube 8)

- 16% were in the Healthcare and social assistance industry division, with around 11% employed in the Education and training and the Professional, scientific and technical services industries; and
- 32% were in the Professionals occupation group, with the second largest group being Technicians and trades workers (15%).

3.8 million (32%) employed persons had a Bachelor degree or above, while 2.4 million (20%) employed persons had a Certificate III/IV.

## **EMPLOYEE CHARACTERISTICS**

In August 2016, there were 9.8 million employees. Of these:

- 51% were males; (Datacube 6)
- 67% worked full-time in their main job; (Datacube 5)
- 24% were professionals; (Datacube 6)
- 14% worked in the Health Care and Social Assistance industry division;
- 84% of employees aged 45-54 years had paid leave entitlements, followed by 83% of 35-44 years and 81% of 55-59 year age groups; and
- 32% level of highest educational attainment was Bachelor degree or above, followed by Certificate III/IV (19%) and Year 12 (18%).

## **OMIEs CHARACTERISTICS**

In August 2016, there were 826,900 OMIEs. Of these:

- 71% were males; (Datacube 5)
- 77% worked full-time in their main job;
- 92% had been with their current business for 1 year or more; (Datacube 6)
- 34% were Managers;
- 19% worked in the Construction industry division;
- 35% had a Bachelor degree or above; and
- 59% had employees.

## **OMUEs CHARACTERISTICS**

In August 2016 there were 1.2 million OMUEs. Of these:

- 62% were males; (Datacube 5)
- 59% worked full-time in their main job;
- 88% had been with their current business for 1 year or more; (Datacube 6)
- 24% were Technicians and trades workers;
- 21% worked in the Construction industry division;
- 29% had a Certificate level qualification; and
- 80% did not have employees.

# **Earnings**

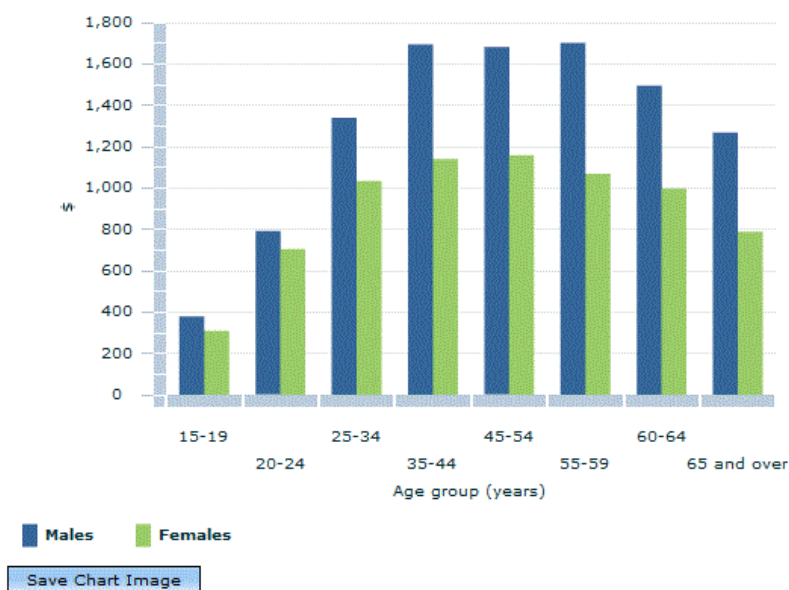
## **EARNINGS IN ALL JOBS**

Mean weekly earnings for full-time employees and owner managers incorporated enterprises (OMIEs) in all jobs was \$1,506 (\$1,605 for males and \$1,341 for females), an increase of 43% since August 2006 (\$1,051). The mean weekly earnings for part-time workers was \$597 (\$572 for males and \$607 for females), an increase of 54% since August 2006 (\$388). The mean weekly earnings for all employees and OMIEs in all jobs was \$1223, an increase of 42% since August 2006 (\$862). (Datacube 2)

## **EARNINGS IN MAIN JOB**

## MEAN WEEKLY EARNINGS

Mean Weekly Earnings in Main Job for Employees & OMIEs by Age of Person & Sex



Australian Bureau of Statistics

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**Source(s):** Characteristics of Employment, Australia, August 2016

The mean weekly earnings for employees and OMIEs in their main job in August 2016 was \$1,212 (\$1,411 for males and \$994 for females). The age groups with the highest mean weekly earnings of \$1,441 was in the 35–44 year old age group (\$1,693 for males, compared to \$1,139 for females) and \$1,417 in the 45–54 year old age group (\$1,680 for males, compared to \$1,158 for females). (Datacube 10)

The main job mean weekly earnings was higher for males than for females in every age group. For those aged 65 years and over, mean weekly earnings for females was 62% of that for males. In the 20–24 year age group, average weekly earnings for females were 89% of male earnings.

The greatest difference in mean weekly earnings between males and females was for those aged 55–59 (a difference of \$632 per week), while the smallest difference, \$70, was for those aged 15–19 years.

### Location

Employees and OMIEs from the Australian Capital Territory and Northern Territory had the highest mean weekly earnings in their main job (both \$1,402). For males, those in Northern Territory had the highest mean weekly earnings (\$1,646) followed by Western Australia (\$1,561). Whilst for females, those in Australian Capital Territory had the highest mean weekly earnings (\$1,278) followed by Northern Territory (\$1,116). (Datacube 24)

### Industry of main job

The industry division with the highest mean weekly earnings in main job was Mining (\$2,261) followed by Electricity, gas, water and waste services (\$1,660). The industry division with the lowest mean weekly earnings was Accommodation and food services (\$629). (Datacube 10)

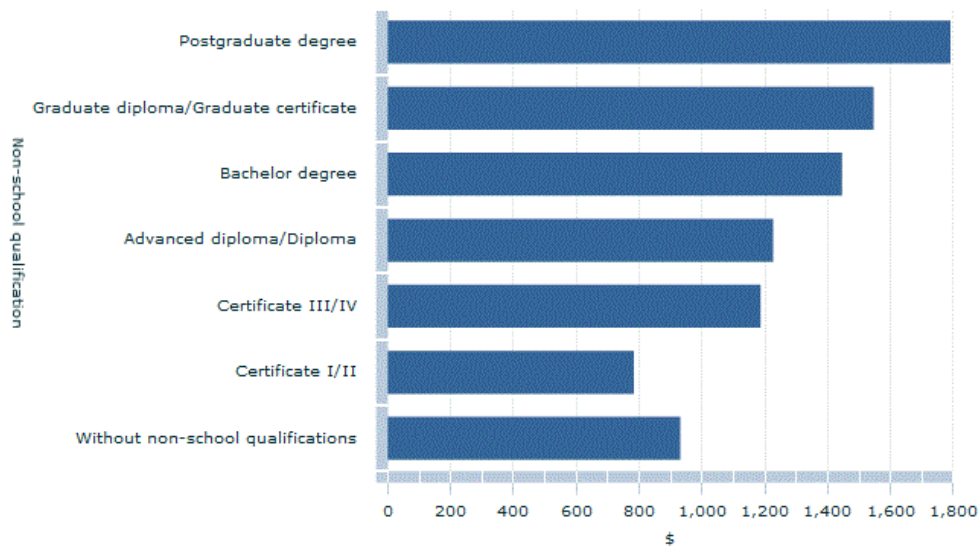
### Occupation of main job

The occupation groups with the highest mean weekly earnings was Managers (\$1,853) followed by Professionals (\$1,545). The occupation group with the lowest mean weekly earnings was Sales workers (\$721). (Datacube 10)

### Education

Mean weekly earnings in main job for those with a non-school qualification was highest for those with a Postgraduate degree (\$1,791) while the lowest mean weekly earnings was for those with a Certificate I/II (\$784). This compares to a mean of \$931 for those without a non-school qualification. (Datacube 13)

Mean Weekly Earnings in Main Job for Employees & OMIES, by Highest Level of Non-school Qualification



■ Mean weekly earnings

Save Chart Image

Australian Bureau of Statistics

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Source(s): Characteristics of Employment, Australia, August 2016

## MEDIAN WEEKLY EARNINGS

In August 2016, the median weekly earnings in main job for all employees and OMIEs was \$1,000, compared to a mean of \$1,212. The difference between the mean and median shows that the high earnings of some employees and OMIEs increases the mean weekly earnings relative to median earnings. Approximately 13% of employees and OMIEs in their main job earned at least twice the median - \$2,000 or more per week in their main job. (Datacube 11)

### Industry and occupation of main job

Median weekly earnings was highest for employees who worked in the Mining industry division (\$2,019) while the lowest median weekly earnings was for employees and OMIEs who worked in the Accommodation and food services industry division (\$500) (Datacube 12). By occupation group, the highest median earnings was for Managers (\$1,500) while the lowest was for Sales workers (\$575). (Datacube 11)

### Full-time or part-time

Median weekly earnings for full-time workers was \$1,250 compared to \$500 for part-time workers. Median weekly earnings in main job for male full-time workers was \$1,334 compared to \$1,150 for females. For part-time workers though, median weekly earnings was higher for females than males (at \$517 and \$450). (Datacube 11)

### Education

Median weekly earnings in main job for those with a non-school qualification was highest for those who had a Postgraduate degree (\$1,500) while the lowest median weekly earning was for those with a Certificate I/II (\$747). This compares to a median of \$800 for those without a non-school qualification. (Datacube 13)

## Independent Contractors

### INDEPENDENT CONTRACTORS

Information presented on independent contractors comprises persons who were employees, owner managers of incorporated enterprises (OMIEs) and owner managers of unincorporated enterprises (OMUEs).

There were just over 1 million persons who were independent contractors in August 2016. Almost three quarters (72%) of all independent contractors were males. More than half (55%) of all independent contractors were aged 45 years and over. (Datacube 14)

The Construction industry division had the most independent contractors (30%) followed by the Professional, scientific and technical services industry division (16%). These industry divisions also had the most male independent contractors (40%

and 14% respectively). By comparison, the Professional, scientific and technical services industry division had the most female independent contractors (21%) followed by Health care and social assistance (20%). (Datacube 15)

**Distribution of Independent Contractors by Occupation of Main Job by Sex**



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**Source(s):** Characteristics of Employment, Australia, August 2016

The occupation groups with the highest number of independent contractors were Technicians and trades workers (27%) and Professionals (24%). These occupation groups also employed the highest proportions of male independent contractors (36% and 19% respectively). In contrast, for female independent contractors, the occupation groups with the highest proportions were Professionals (38%) followed by Clerical and administrative workers (18%).

Other characteristics of independent contractors include:

- 93% expected to be with current employer/business in 12 months;
- 32% of those who did not expect to be with current employer/business in 12 months reported that they would be changing jobs/seeking other employment, while 22% said they would be retiring;
- 14% had been with their current employer/business for less than one year, while 40% had been with their current employer/business for 10 years or more;
- 31% of independent contractors reported their highest level of educational attainment was a Certificate III/IV. The most common educational attainment for males was a Certificate III/IV (38%), whilst for females the most common level of educational attainment was a Bachelors degree (26%);
- 44% had more than one active contract in the reference week;
- 74% were usually able to work on more than one active contract;
- 58% were able to (sub)contract their own work; and
- 36% did not have authority over their own work.

## Trade Union Members

### TRADE UNION MEMBERSHIP IN THEIR MAIN JOB<sup>1</sup>

#### Employees and OMIEs in main job

Trade union membership for employees and OMIEs has generally declined since 1992. From August 1992 to August 2016, the proportion of those who were trade union members in their main job has fallen from 40% to 15% (43% to 13% for males and 35% to 16% for females). (Datacube 16)

In August 2016, of employees and OMIEs in their main job;

- 1.5 million were trade union members in their main job;
- 16% of full-time workers and 12% of part-time workers were trade union members in their main job; and
- Tasmania had the highest proportion (21%) who were trade union members in connection with their main job, while Western Australia had the lowest proportion (12%).

## **Employed persons in main job<sup>1</sup>**

In August 2016, there were 1.6 million employed persons who were trade union members in their main job. Persons in the Education and training, and the Public administration and safety industry divisions, had the highest proportion of trade union membership in their main job (both 31%). (Datacube 18)

The occupation group that had the highest proportion of trade union members in their main job was Professionals (20%), followed by and Machinery operators and drivers (18%).

Other characteristics of trade union members in their main job include:

- 51% were females;
- 92% of employees had paid leave entitlements;
- 38% of public sector workers were members of a trade union in their main job, compared to only 9% of private sector workers;
- The mean weekly earnings in main job was \$1,360, compared to \$1,189 for those who were not trade union members; (Datacube 19)
- The median weekly earnings in main job was \$1,211, compared to \$1,000 for those who were not trade union members;
- Only 4% of employed persons aged 15-19 years and 7% of employed persons aged 20-24 were trade union members in their main job; (Datacube 17) and
- 21% of employed persons aged 55–59 years were trade union members and of those 88% have been for over five years.

1 From 2014, all employed people were asked about whether they were members of a trade union. In previous years, only employees and owner managers of incorporated enterprises were asked if they were members of a trade union.

## **Persons who found their job through a Labour Hire Firm/Employment Agency**

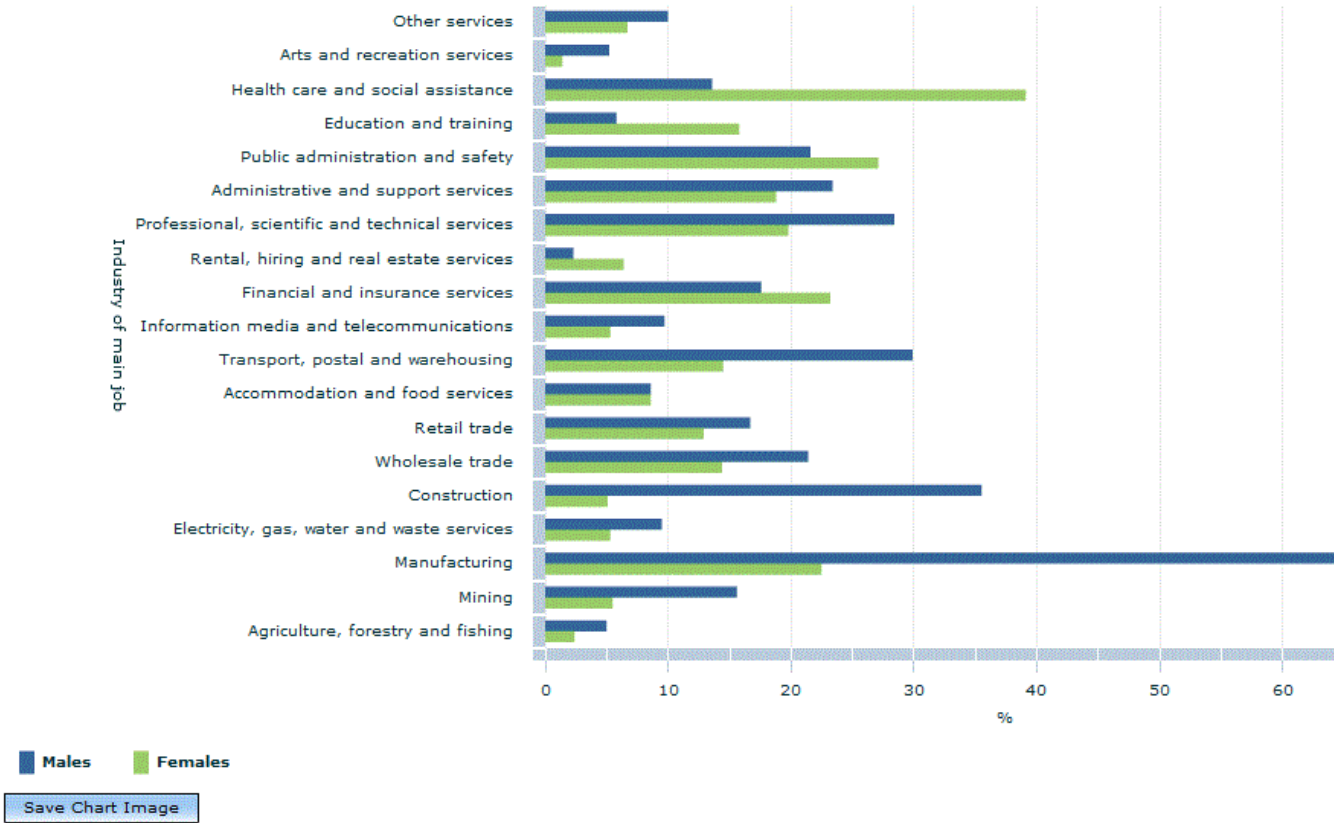
### **PERSONS WHO FOUND THEIR JOB THROUGH A LABOUR HIRE FIRM/EMPLOYMENT AGENCY**

In August 2016, there were approximately 600,800 persons who had found their job through a labour hire firm/employment agency of which 59% were males. (Datacube 21)

The industry division with the most males who found their job through a labour hire firm/employment agency was Manufacturing (21%) followed by Construction (10%). For females, the most common industry divisions were Health care and social assistance (16%) followed by Public administration and safety (11%).



Persons who found their job through a labour hire firm or employment agency, By Industry of main job by Sex



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**Source(s):** Characteristics of Employment, Australia, August 2016

Of those persons who found their job through a labour hire firm/employment agency, the age groups with the highest proportion were in the 35–44 and 25–34 year age groups (29% and 26% respectively).

The most common occupation groups for males who had found their job through a labour hire firm/employment agency were Machinery operators and drivers (21%), Technicians and Trades workers (19%) and Labourers (18%). For females, the most common occupation groups were Clerical and administrative workers (38%) and Professionals (22%).

There were approximately 133,700 persons (22% of those who had found their job through a labour hire firm/employment agency) who were paid by a labour hire firm/employment agency (labour hire workers). Of these 64% were males. (Datacube 20)

The mean weekly earnings for persons who found their job through a labour hire firm/employment agency was \$1,334. For full-time workers the mean weekly earnings was \$1,522, and for part-time workers it was \$622. For males who found their job through a labour hire firm/employment agency the mean weekly earnings was \$1,470 compared to \$1,140 for females. (Datacube 22)

The median weekly earnings for persons who found their job through a labour hire firm/employment agency was \$1,110.

## Notes

### ABOUT THIS PUBLICATION

The statistics in this release were compiled from the Characteristics of Employment (COE) Survey conducted throughout Australia in August 2016 as an annual supplement to the Australian Bureau of Statistics (ABS) monthly Labour Force Survey (LFS). Questions were asked of all employed persons except for those who worked as contributing family workers in their main job.

This release presents information about estimates of all employed persons in August 2016. Data are presented on the weekly earnings of employees and owner managers of incorporated enterprises (OMIEs), independent contractors, trade union membership and working arrangements, including overwork, job flexibility, and working patterns. This information is cross classified by a range of personal characteristics, characteristics of employment such as full-time or part-time status, industry and occupation of main job, and demographic characteristics.

Caution should be exercised when comparing results from the 2016 COE survey to previous surveys such as Forms of Employment (FOE) (2008–2013) and Employee Earnings, Benefits and Trade Union Membership (EEBTUM), as the populations in this release are not directly comparable.

For comparisons of earnings data, prior to 2014 users should use the population group 'Employees' from EEBTUM and from 2014 the population group 'Employees and OMIEs' from COE.

## CONFIDENTIALITY

To minimise the risk of identifying individuals in aggregate statistics, a technique is used in this release to randomly adjust cell values. This technique is called perturbation. Perturbation involves small random adjustment of the statistics and is considered the most satisfactory technique for avoiding the release of identifiable statistics while maximising the range of information that can be released. These adjustments have a negligible impact on the underlying pattern of the statistics. After perturbation, a given published cell value will be consistent across all tables. However, adding up cell values to derive a total will not necessarily give the same result as published totals.

## MICRODATA

Characteristics of Employment 2016 microdata will be available via TableBuilder (cat. no. 6333.0.0.001). For more information see About TableBuilder.

## ROUNDING

As estimates have been rounded, discrepancies may occur between sums of the component items and totals.

## INQUIRIES

For more information about ABS data available on request, contact National Information and Referral Service in Canberra on 1300 135 070 or via email to <client.services@abs.gov.au>. The ABS Privacy Policy outlines how the ABS handles any personal information that you provide to us.

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## About this Release

Contains information on: weekly earnings of employees which shows the distribution of weekly earnings of all wage and salary earners classified by full-time/part-time workers; employment characteristics which presents data on trade union membership, fixed-term contracts, and independent contractors all of which can be cross classified by other employment characteristics such as hours worked, industry, occupation and sector of job as well as personal characteristics.

## History of Changes

**This document was added or updated on 29/05/2018.**

**29/05/2018** - Correction to Data Cube 15 and associated statistical commentary as follows:

**Datacube 15:** Independent contractors: Selected main job characteristics-By full-time or part-time status in main job - Labelling corrected for 'whether had authority over own working procedures', and, 'whether had more than one active contract in the reference week'.

**Summary findings:** Independent contractors - Update to percentages of Independent contractors who had more than one active contract in the reference week, and Independent contractors who did not have authority over their own work.

**22/05/2017** - Correction to Data Cube 3 as follows:

**Data cube 3:** Employed persons: Status of employment in main job - Timeseries, contained incorrect data for employees with and without paid leave entitlements for the years 2005 - 2007. This data has been updated.

## Explanatory Notes

### Explanatory Notes

#### EXPLANATORY NOTES

## INTRODUCTION

**1** The statistics in this publication were compiled from information collected in the Characteristics of Employment (COE) survey conducted throughout Australia in August 2016 as a supplement to the Australian Bureau of Statistics' (ABS) monthly Labour Force Survey (LFS). Respondents to the LFS who fell within the scope of the supplementary survey were asked further questions.

**2** Information about survey design, scope, coverage and population benchmarks relevant to the monthly LFS, which also applies to supplementary surveys, can be found in the publication Labour Force, Australia (cat. no. 6202.0).

## CONCEPTS, SOURCES AND METHODS

**3** The conceptual frameworks used in the monthly LFS align closely with the standards and guidelines set out in Resolutions of the International Conference of Labour Statisticians. Descriptions of the underlying concepts and structure of Australia's labour force statistics, and the sources and methods used in compiling these estimates, are presented in Labour Statistics: Concepts, Sources and Methods (cat. no. 6102.0.55.001).

**4** The conceptual framework for measures of mean and median earnings aligns closely with the standards and guidelines set out in the System of National Accounts 2008, and Resolutions of the International Conference of Labour Statisticians.

## SCOPE

**5** The scope of the LFS is restricted to people aged 15 years and over and excludes the following people:

- members of the permanent defence forces;
- certain diplomatic personnel of overseas governments, customarily excluded from the Census and estimated populations;
- overseas residents in Australia; and
- members of non-Australian defence forces (and their dependants).

**6** Students at boarding schools, patients in hospitals, residents of homes (e.g. retirement homes, homes for people with disabilities), and inmates of prisons are excluded from all supplementary surveys.

**7** This supplementary survey was conducted in both urban and rural areas in all states and territories, but excluded persons living in Aboriginal and Torres Strait Islander communities in very remote parts of Australia.

**8** In addition to those already excluded from the LFS, contributing family workers, persons not in the labour force and unemployed persons were also excluded.

## COVERAGE

**9** The estimates in this publication relate to persons included in the survey in August 2016. In the LFS, coverage rules are applied, which aim to ensure that each person is associated with only one dwelling, and hence has only one chance of selection in the survey. See Labour Force, Australia (cat. no. 6202.0) for more details.

## SAMPLE SIZE

**10** Supplementary surveys are not always conducted on the full LFS sample. Since August 1994 the sample for supplementary surveys has been restricted to no more than seven-eighths of the LFS sample.

**11** This survey is fully based on the sample introduced after the 2011 Census of Population and Housing. For more information, see the Article in the May 2013 issue of Labour Force, Australia (cat. no. 6202.0).

## RELIABILITY OF THE ESTIMATES

**12** Estimates in this publication are subject to sampling and non-sampling errors:

- Sampling error is the difference between the published estimate and the value that would have been produced if all dwellings had been included in the survey. For more information, see the Technical Note.
- Non-sampling errors are inaccuracies that occur because of imperfections in reporting by respondents and interviewers, and errors made in coding and processing data. These inaccuracies may occur in any enumeration, whether it be a full count or a sample. Every effort is made to reduce the non-sampling error to a minimum by careful design of questionnaires, intensive training and effective processing procedures.

## SEASONALITY

**13** The estimates are based on information collected in the survey month (August) and, due to seasonality, may not be representative of other months of the year.

## CLASSIFICATIONS USED

**14** Country of birth data are classified according to the Standard Australian Classification of Countries (SACC), 2011 (cat. no. 1269.0).

**15** Occupation data are classified according to ANZSCO - Australian and New Zealand Standard Classification of Occupations, 2013, Version 1.2 (cat. no. 1220.0).

**16** Industry data are classified according to the Australian and New Zealand Standard Industrial Classification (ANZSIC), 2006 (Revision 2.0) (cat. no. 1292.0).

**17** Education data are classified according to the Australian Standard Classification of Education (ASCED), 2001 (cat. no. 1272.0).

## CONFIDENTIALITY

**18** To minimise the risk of identifying individuals in aggregate statistics, a technique is used to randomly adjust cell values. This technique is called perturbation. Perturbation involves small random adjustment of the statistics and is considered the most satisfactory technique for avoiding the release of information that could identify individual survey respondents while maximising the range of information that can be released. These adjustments have a negligible impact on the underlying pattern of the statistics. After perturbation, a given published cell value will be consistent across all tables. However, adding up cell values to derive a total will not necessarily give the same result as published totals.

## NOTES ON ESTIMATES

**19** Where information relating to earnings in both main job and/or second job was not provided by the respondent, values have been imputed. In August 2016, there were 3,745 cases where information relating to earnings in main job was not provided by the respondent and 163 cases where information relating to earnings in second job was not provided by the respondent. Where this was the only information missing from the respondent record, the value was imputed based on answers provided from another respondent with similar characteristics (referred to as the "donor"). Donor records were selected for imputation of earnings in main job by matching information on sex, age, state or territory of usual residence and selected labour force characteristics (full-time or part-time in main job, industry, occupation, hours worked in main job, owner manager status) of the person with missing information.

**20** Donor records were selected for imputation of earnings in second job by matching information on age, state or territory of usual residence, area of usual residence, owner manager status, hours worked in second job and frequency of pay in second job. Depending on which values were imputed, donors were chosen from the pool of individual records with complete information for the block of questions where the information was missing.

## Earnings

**21** Estimates relating to mean and median weekly earnings exclude owner managers of incorporated enterprises (OMIEs) who did not draw a wage or salary and employees who only received payment in kind.

## Leave entitlements

**22** Employees have been classified as 'With paid leave entitlements' if they were entitled to paid sick leave and/or paid holiday leave. In all other cases, employees have been classified as 'Without paid leave entitlements'.

## COMPARABILITY OF TIME SERIES

**23** The LFS estimates and estimates from the supplementary surveys, (e.g. COE) are calculated in such a way as to sum to the independent estimates of the civilian population aged 15 years and over (population benchmarks). These population benchmarks are updated quarterly based on Estimated Resident Population (ERP) data. Generally, revisions are made to population benchmarks for the LFS following the final rebasing of population estimates to the latest five-yearly Census of Population and Housing, or when the need arises. However, the estimates from previous supplementary surveys are not normally revised to reflect the latest benchmarks.

**24** From January 2014, Labour Force Estimates have been compiled using population benchmarks based on the 2011 Census of Population and Housing. At the time of publication, this issue's estimates are comparable with the published labour force estimates for August 2016.

**25** Changes to the LFS population benchmarks impact primarily on the magnitude of the Labour Force Survey estimates

(e.g. employment and unemployment) that are directly related to the underlying size of the population. For more details on population benchmarks, see the Explanatory Notes in Labour Force, Australia (cat. no. 6202.0), and for details about the revisions made, see the article in the January 2014 issue of Labour Force, Australia (cat. no. 6202.0) and the article in the November 2012 issue of Labour Force, Australia (cat. no. 6202.0).

**26** From August 2014 collection of earnings in second job was changed to match the collection of earnings in main job. Previously, earnings in second job was collected from respondents who were employees in their second job who actually worked some hours in their second job in the reference week. Earnings were reported for those hours actually worked in that job. From 2014, earnings in second job were collected from employees in their second job regardless of whether they worked in that job in the reference week. Earnings data and frequency of pay in that second job were subsequently collected. This change will result in a break in series of earnings in all jobs and earnings in second job. Caution should be exercised when comparing second and all job earnings data from COE with previous EEBTUM data.

**27** Caution should be exercised when comparing results from the 2016 COE to previous Employee Earnings, Benefits and Trade Union Membership surveys (EEBTUM) as the population Employees in COE is not directly comparable to the Employees population in EEBTUM. In EEBTUM Employees comprised both employees and OMIEs. For comparisons of earnings data, prior to 2014 users should use the population group Employees from EEBTUM and from 2014 the population group Employees and OMIEs from COE. In this publication time series presents the population groups on a consistent basis.

**28** Caution should be exercised when comparing results from the 2016 COE to previous Forms of Employment surveys (FOE) (2008–2013) as the population Employees in COE is not directly comparable to the Employees population in FOE.

**29** Prior to 2014, information about trade union membership was collected only of employees and owner managers or incorporated enterprises. From 2014 onwards, information on trade union membership is collected from all employed people. See Appendix: Status of employment and population concordance for more information.

**30** For information on the history of changes to EEBTUM, see the Explanatory Notes (cat. no. 6310.0).

**31** For information on the history of changes to FOE, see the Explanatory Notes (cat. no. 6359.0).

### **Salary sacrifice**

**32** The estimates of earnings in this publication are produced in accordance with the conceptual framework for measures of employee remuneration, as outlined in Information paper: Changes to ABS Measure of Employee Remuneration, Australia 2006 (cat. no. 6313.0).

**33** From 2007, as a result of a change in the concept of earnings being measured, employees and OMIEs were asked to include salary sacrifice when estimating their earnings. In previous years, there was no explicit reference to the treatment of salary sacrifice. It is probable that some employees were already including amounts of salary sacrifice in their estimates of earnings, depending upon how their pay was reported. This change has resulted in a break in series. Users need to exercise care when comparing the earnings of employees and OMIEs in this release with those prior to 2007.

### **Imputation**

**34** From 2014, additional information relating to the number of hours usually worked and the frequency of pay in a respondent's second job were added to the imputation process for second job earnings.

**35** From 2009, additional information relating to the number of hours that a respondent's last pay period covered in their main job was added to the imputation process for main job earnings.

**36** Aside from the changes listed above, the current imputation method has been used since the 2005 survey. A similar method of imputation was used for the 2004 survey. The differences between the 2004 and the current imputation method are that donors are matched, where possible at a finer level of detail; and second job earnings are imputed whereas in 2004 they were not.

**37** Prior to 2004, imputation was not used. Employees whose weekly earnings could not be determined were excluded from estimates of mean or median weekly earnings. Care should be taken when comparing earnings data from 2004 onwards with earnings data prior to 2004. To compare the change in methodology from 2003 to 2004 see paragraph 28 of the Explanatory Notes in the August 2004 Employee Earnings, Benefits and Trade Union Membership (cat. no. 6310.0).

### **COMPARABILITY WITH MONTHLY LFS STATISTICS**

**38** Due to differences in the scope and sample size of this supplementary survey and that of the monthly LFS, the estimation procedure may lead to some small variations between labour force estimates from this survey and those from the LFS.

### **COMPARABILITY WITH EMPLOYER-BASED SURVEYS**

**39** Caution should be exercised when comparing estimates of earnings in this release with estimates of earnings included in the biannual Average Weekly Earnings, Australia (cat. no. 6302.0) and two-yearly Employee Earnings and Hours,

Australia (cat. no. 6306.0) publications. The data in both these publications are compiled from employer based surveys. There are important differences in the scope, coverage and methodology of these surveys which can result in different estimates of earnings from each survey.

**40** The survey of Average Weekly Earnings (AWE) collects information from employers who provide details of their employees' total gross earnings and their total number of employees. The survey of Employee Earnings and Hours (EEH) collects information about weekly earnings and hours paid for, and the individual characteristics of a sample of employees within each selected employer unit. Both AWE and EEH are completed by employers with information from their payroll. However, for COE and EEBTUM, respondents are either the employed person or another adult member of their household who responds on their behalf. Where earnings are not known exactly an estimate is reported. There are also scoping differences between both household and employer surveys. For example, AWE and EEH exclude employees in the Agriculture, forestry and fishing industry, and also employees of Private households, whereas these employees are included in the COE and EEBTUM surveys.

**41** The earnings series from AWE historically excluded amounts salary sacrificed. However, since the May 2011 AWE publication, the Average Weekly Cash Earnings (AWCE) series have also been released. These series are inclusive of salary sacrificed amounts. The key earnings series from AWE have continued to be published on the old conceptual basis (i.e. exclusive of amounts salary sacrificed) to maintain long term comparability of the key series. In EEH, the salary sacrificed amounts have been included in the estimates of mean and median weekly earnings from 2006 onwards. From 2007, COE and EEBTUM have included amounts salary sacrificed in the estimates of mean and median weekly earnings.

**42** For further information on a number of earning series available from ABS sources, please refer to the feature article Understanding earnings in Australia using ABS statistics published in Australian Labour Market Statistics, July 2014 (cat. no. 6105.0).

## PREVIOUS SURVEYS

**43** Similar surveys on weekly earnings have been conducted annually in August since 1975, except in 1991 when the survey was conducted in July, and in 1996 when the survey was not conducted.

**44** Prior to 1999, the EEBTUM publication was titled Weekly Earnings of Employees (Distribution), Australia (cat. no. 6310.0). The change in title reflects the inclusion of employment benefits and trade union membership data previously released in other publications.

**45** Results of previous surveys on employment benefits have been published in Weekly Earnings of Employees (Distribution), Australia, August 1997 (cat. no. 6310.0).

**46** Information on trade union membership was first collected in 1976, then biennially in its current format, from 1986 to 1992. From 1994, it was conducted annually (with only limited data available every second year). Results of previous surveys were published in Labour Force, Australia, December 1994, December 1995 (cat. no. 6203.0).

**47** Limited data on trade union membership have also been published in:

- Employment Arrangements, Retirement and Superannuation, Australia, April to July 2007 (Re-issue) (cat. no. 6361.0);
- Weekly Earnings of Employees (Distribution), Australia, August 1997 (cat. no. 6310.0);
- Working Arrangements, Australia, November 2000 (cat. no. 6342.0); and
- Working Arrangements, Australia, November 2003 (cat. no. 6342.0).

## PRODUCTS AND SERVICES

**48** A number of Datacubes (spreadsheets) containing all tables produced for this publication are available from the Downloads tab of the publication. The Datacubes present tables of estimates and their corresponding Relative Standard Errors (RSEs).

**49** For users who wish to undertake a more detailed analysis of the data, the survey microdata will be released through the TableBuilder product. For more details, refer to the TableBuilder information, Microdata, Characteristics of Employment, Australia (cat. no. 6333.0.00.001). For more information see About TableBuilder.

**50** Special tabulations are available on request. Subject to confidentiality and sampling variability constraints, tabulations can be produced from the survey incorporating data items, populations and geographic area selections to meet individual requirements. These can be provided in printed or electronic form. All enquiries should be made to the National Information and Referral Service on 1300 135 070.

## NEXT SURVEY

**51** The next survey will be conducted in August 2017 and will contain information on overwork, job flexibility, working patterns and locations of work. Data on trade union membership, independent contractors and employment found through an employment agency or labour hire firm will not be collected in August 2017.

## ACKNOWLEDGEMENT

**52** ABS surveys draw extensively on information provided freely by individuals, businesses, governments and other organisations. Their continued cooperation is very much appreciated: without it, the wide range of statistics published by the ABS would not be available. Information received by the ABS is treated in strict confidence as required by the **Census and Statistics Act, 1905**.

## RELATED PUBLICATIONS

**53** Refer to Related Information tab for other ABS publications which may be of interest.

**54** Current publications and other products released by the ABS are available from the Statistics Page on the ABS website. The ABS also issues a daily Release Advice on the website which details products to be released in the week ahead.

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## Glossary

### GLOSSARY

#### Born in Australia

Includes persons born in Australia, Norfolk Island and Australian External Territories.

#### Considered job to be casual

Employees who considered their job to be casual, regardless of any entitlements that they may receive.

#### Continuous duration with current employer/business

The length of the current period of employment people had with their employer or in their own business. The length of time includes periods of paid leave, unpaid leave or strike.

#### Did not draw a wage or salary

Consists of persons who worked in their own incorporated enterprise only i.e. Owner managers of incorporated enterprises (OMIEs)

#### Employed persons

People aged 15 years and over who, during the reference week:

- worked for one hour or more for pay, profit, commission or payment in kind, in a job or business or on a farm (comprising employees, employers and own account workers); or
- worked for one hour or more without pay in a family business or on a farm (i.e. contributing family workers); or
- were employees who had a job but were not at work and were:
  - away from work for less than four weeks up to the end of the reference week;
  - away from work for more than four weeks up to the end of the reference week and received pay for some or all of the four week period to the end of the reference week;
  - away from work as a standard work or shift arrangement;
  - on strike or locked out;
  - on workers' compensation and expected to return to their job; or
- were employers or own account workers who had a job, business or farm, but were not at work.

Contributing family workers in their main job were excluded from the Characteristics of Employment Survey.

#### Employees

Employees are persons who:

- worked for a public or private employer; and
- received remuneration in wages or salary; or are paid a retainer fee by their employer and worked on a commission basis, for tips, piece-rates or payment in kind.

From August 2014, the Characteristics of Employment (COE) Survey definition of employees differs from the definition used in surveys prior to July 2014 including, the Labour Force Survey, other household surveys (including earlier Forms of Employment, Employee Earnings, Benefits and Trade Union Membership and Working Time Arrangements surveys). See

Appendix: Status of employment and population concordance for more information.

### **Employment agency**

An employment agency is an organisation which is engaged in personnel search, or selection and placement of people for an employing organisation. The agency or firm may also be engaged in supply of their own employees to other employers, usually on a short-term basis. (See also labour hire firm).

### **Fixed-term contract**

A contract of employment which specifies that the employment will be terminated on a particular date/event.

### **Full-time workers in main job**

People who were employees in their main job and were:

- Single job holders who usually work 35 hours or more a week, or usually work fewer than 35 hours but worked 35 hours or more during the reference week; or
- Multiple job holders who usually work 35 hours or more in their main job and those who, although usually working fewer than 35 hours in their main job, worked 35 hours or more during the reference week.

### **Full-time workers**

Employed persons who usually worked 35 hours or more a week (in all jobs) and others who, although usually worked less than 35 hours a week, worked 35 hours or more during the reference week. These people were classified as full-time workers.

### **Holiday leave**

The entitlement of an employee to paid holiday, paid vacation or paid recreation leave in their main job.

### **Hours paid for in main job**

The number of hours for which employees and OMIEs were paid in their main job in their last pay, not necessarily the number of hours actually worked during the reference week (e.g. a person on paid leave for the week was asked to report the number of hours for which they were paid).

### **Hours usually worked**

The number of hours usually worked in a week.

### **Hours worked**

The number of hours actually worked during the reference week.

### **Independent contractors**

Independent contractors are persons who operate their own business and who are contracted to perform services for others without having the legal status of an employee, i.e. persons who are engaged by a client, rather than an employer to undertake the work. Independent contractors are engaged under a contract for services (a commercial contract), whereas employees are engaged under a contract of service (an employment contract).

Independent contractors' employment may take a variety of forms, for example, they may have a direct relationship with a client or work through an intermediary. Independent contractors may have employees, however they spend most of their time directly engaged with clients or on client tasks, rather than managing their staff.

### **Industry**

An industry is a group of businesses or organisations that undertake similar economic activities to produce goods and/or services. In this publication, industry refers to ANZSIC Division as classified according to the Australian and New Zealand Standard Industrial Classification (ANZSIC), 2006 (Revision 2.0) (cat. no. 1292.0).

### **Labour hire firm**

A labour hire firm is an organisation which is engaged in personnel search, or selection and placement of people for an employing organisation. The agency or firm may also be engaged in supply of their own employees to other employers, usually on a short-term basis. (See also employment agency).

### **Labour hire workers**

Labour hire workers are persons who found their job through a labour hire firm/employment agency and are paid by the labour hire firm/employment agency.



### **Level of highest educational attainment**

Level of highest educational attainment identifies the highest achievement a person has attained in any area of study. It is not a measurement of the relative importance of different fields of study but a ranking of qualifications and other educational attainments regardless of the particular area of study or the type of institution in which the study was undertaken. It is categorised according to the Australian Standard Classification of Education, 2001 (cat. no. 1272.0) Level of education classification.

### **Level of highest non-school qualification**

A person's level of highest non-school qualification is the highest qualification a person has attained in any area of formal study other than school study. It is categorised according to the Australian Standard Classification of Education, 2001 (cat. no. 1272.0) Level of education classification.

### **Main job**

The job in which the most hours were usually worked.

### **Mean weekly earnings**

The amount obtained by dividing the total earnings of a group by the number of employees and OMIEs in that group.

### **Median weekly earnings**

The amount which divides the distribution of employees and OMIEs into two groups of equal size, one having earnings above and the other below that amount.

### **Multiple jobholder**

Employed persons who, during the reference week, worked in more than one job. Multiple jobholders exclude those who changed employer during the reference week. People who were unpaid voluntary workers or on unpaid trainee/work placement in their second job were excluded from the Multiple jobholder population.

Information on earnings in main job is collected from all multiple jobholders. Information on earnings in second job is only collected from multiple jobholders who were employees or OMIEs in their second job and were an employee or OMIEs in their main job.

### **Occupation**

An occupation is a collection of jobs that are sufficiently similar in their title and tasks, skill level and skill specialisation which are grouped together for the purposes of classification. In this publication, occupation refers to Major Group and Sub-Major Group as defined by ANZSCO - Australian and New Zealand Standard Classification of Occupations, 2013, Version 1.2 (cat. no. 1220.0).

### **Owner managers of incorporated enterprises (OMIEs)**

People who work in their own incorporated enterprise, that is, a business entity which is registered as a separate legal entity to its members or owners (may also be known as a limited liability company).

An owner manager of an incorporated enterprise may or may not hire one or more employees in addition to themselves and/or other owners of that business. See Status of Employment for more information.

### **Owner managers of unincorporated enterprises (OMUEs)**

A person who operates his or her own unincorporated enterprise or engages independently in a profession or trade.

An owner manager of an unincorporated enterprise may or may not hire one or more employees in addition to themselves and/or other owners of that business. See Status of Employment for more information.

### **Paid leave entitlements**

The entitlement of employees to either paid holiday leave, paid sick leave in their main job.

### **Part-time workers in main job**

People who were employees in their main job and were:

- Single job holders who usually work fewer than 35 hours a week, and did so in the reference week; or
- Multiple job holders who actually worked fewer than 35 hours in their main job in the reference week, or were away from their main job but usually work fewer than 35 hours a week in their main job.

### **Part-time workers**

Employed persons who usually worked fewer than 35 hours a week (in all jobs) and either did so during the reference week, or were not at work in the reference week. In this publication, part-time workers relates to part-time workers who were employees in their main job.

### **Second job**

A job, other than the main job.

### **Sector of main job**

Sector of main job is used to classify a respondent's employer as a public or private enterprise. The public sector includes all government units, such as government departments, non-market non-profit institutions that are controlled and mainly financed by government, and corporations and quasi-corporations that are controlled by government.

### **Sick leave**

The entitlement of an employee to paid sick leave in their main job.

### **Status of Employment**

Status of employment is determined by an employed person's position in relation to their job, and is usually in respect of a person's main job if they hold more than one job. Employed persons are classified according to the reported relationship between the person and the enterprise for which they work, together with the legal status of the enterprise where this can be established. The groups include:

- Employees
- OMIEs
  - OMIEs with employees
  - OMIEs without employees
- OMUEs
  - OMUEs with employees
  - OMUEs without employees and
- Contributing family workers.

### **Trade union**

An organisation consisting predominantly of employees, the principal activities of which include the negotiation of rates of pay and conditions of employment for its members.

### **Trade union member**

Employed persons who are a member of a trade union, not necessarily in connection with their main job.

### **Trade union member in main job**

Employed persons with membership in a trade union in connection with their main job.

### **Weekly earnings**

Amount of 'last total pay' (i.e. before taxation, salary sacrifice and other deductions had been made) from wage and salary jobs prior to the interview. For persons paid other than weekly, earnings were converted to a weekly equivalent. No adjustment was made for any back payment of wage increases, prepayment of leave or bonuses, etc.

### **With paid leave entitlements**

Employees who were entitled to either paid holiday leave or paid sick leave (or both) in their main job.

### **Without paid leave entitlements**

Employees who were not entitled to paid holiday leave and paid sick leave, or did not know whether they were entitled to paid holiday leave or paid sick leave in their main job.

### **Worked on a fixed-term contract**

Employees with a contract of employment which specifies that the employment will be terminated on a particular date/event.

# Populations and Data items list (Appendix)

## APPENDIX POPULATIONS

### DATA AVAILABLE ON REQUEST

The ABS has a range of data available on request from the Characteristics of Employment Survey. This section lists the populations which are used in this release. Full details of the data items are available on the ABS website in an Excel spreadsheet, under the Downloads tab: Datacube: Populations and Data items list.

The population(s) for a particular data item refers to the persons in the survey to whom the data item relates.

For more information about ABS data available on request, contact Client Services Section in Canberra on 1300 135 070 or via email <client.services@abs.gov.au>.

The ABS Privacy Policy outlines how the ABS will handle any personal information that you provide to us.

#### Population 1

Employed persons

#### Population 2

Employees in main job

#### Population 3

Employees and Owner managers of incorporated enterprises (OMIEs) in main job

#### Population 4

Owner managers of incorporated enterprises (OMIEs) in main job

#### Population 5

Owner managers of unincorporated enterprises (OMUEs) in main job

#### Population 6

Employed persons who preferred to work more hours than usually worked

#### Population 7

Independent contractors

#### Population 8

Multiple job holders

#### Population 9

Employees in second job

#### Population 10

Employees and Owner managers of incorporated enterprises (OMIEs) in second job

#### Population 11

Trade union members in their main job

#### Population 12

Trade union members

#### Population 13

Persons who found their job through a labour hire firm/employment agency

#### Data items

#### Population

1	State or territory of usual residence	All
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2	Region of usual residence (SA4)	All
3	Sex	All
4	Social marital status	All
5	Relationship in household	All
6	Country of birth	All
7	Country of birth and elapsed years since arrival in Australia	All
8	Age group (years)	All
9	Number of dependents aged 15 to 24 years	All
10	Number of dependents aged 0 to 15 years	All
11	Number of dependents aged 0 to 24 years	All
12	Whether currently studying full-time or part-time	All
13	Level of highest educational attainment	All
14	Level of highest non-school qualification	All
15	Highest year of school completed	All
16	Labour force status	All
17	Status of employment in main job	All
18	Whether held more than one job	All
19	Number of jobs or businesses held last week (held concurrently)	All
20	Main reason for absence from work	All
21	Hours actually worked in main job	All
22	Hours actually worked in all jobs	All
23	Hours usually worked in main job	All
24	Hours usually worked in all jobs	All
25	Full-time or part-time status in all jobs	All
26	Full-time or part-time status in main job	All
27	Underemployment status	All
28	Reason worked less hours than usually worked	All
29	Preferred total number of weekly hours	6
30	Preferred number of extra weekly hours	6
31	Whether available to start work within the reference week with more hours	All
32	Whether prefer and available within the next 4 weeks for more full-time or part-time hours	All
33	Continuous duration with current employer/business	All
34	Expected future duration with current employer/business	All
35	Reason expected future duration with current employer/business less than 12 months	All
36	Sector of main job	All
37	Occupation of main job	All
38	Industry of main job	All
39	Whether entitled to paid holiday leave	2
40	Whether entitled to paid sick leave	2
41	Whether had paid leave entitlements	2
42	Whether retrenched from any job in the previous 3 months	All
43	Weekly earnings in main job	All
44	Weekly earnings in second job	9-10
45	Weekly earnings in all jobs	All
46	Hours paid for in main job	All
47	Hours paid for in second job	9-10
48	Hourly earnings in main job	All
49	Hourly earnings in second job	9-10
50	Frequency of pay in main job	All
51	Whether employment had a set completion date/event in main job	2
52	Time until set employment completion date/event in main job	2
53	Length of fixed term contract in main job	2
54	Whether considered to be an independent contractor	All
55	Trade union membership	All
56	Duration (length) of current trade union membership	All
57	Previous trade union membership	All
58	Whether had more than one active contract in reference week	7
59	Whether usually able to work on more than one active contract	7
60	Whether able to (sub)contract own work	7
61	Whether had authority over own working procedures	7
62	Whether currently registered with a labour hire firm/employment agency	All
63	Whether registered with a labour hire firm/employment agency in the last 12 months	All
64	Whether found current job through a labour hire firm/employment agency	13
65	Whether paid by a labour hire firm/employment agency	13
66	Whether earnings/income varied from one pay period to the next in main job	All
67	Whether guaranteed a minimum number of hours each week in main job	2-4
68	Whether usually worked the same number of hours each week in main job	All
69	Whether considered job to be casual in main job	2
70	Status of employment in second job	9-10

## Population concordance (Appendix)

### APPENDIX POPULATION CONCORDANCE

#### POPULATION CONCORDANCE WITH PREVIOUS SURVEYS

Caution should be exercised when comparing the estimates from this release with estimates prior to COE 2014 as some population groups are conceptually different.

The following table provides a concordance of populations groups used in this release with population groups from previous

surveys:

Population Concordance			
Populations	COE 2016	COE 2015	COE 2014
Employed Persons	Population 1	Population 1	Population 1
Employees in main job	Population 2	Population 2	Population 2
Employees and Owner Managers of Incorporated Enterprises (OMIEs) in main job	Population 3	Population 3	Population 3
Owner Managers of Incorporated Enterprises (OMIEs) in main job	Population 4	Population 4	Population 4
Owner Managers of Unincorporated Enterprises (OMUEs) in main job	Population 5	Population 5	Population 5
Employed persons who preferred to work more hours than usually worked	Population 6	Population 6	Population 6
Independent contractors	Population 7	Population 7	Population 9
Multiple job holders	Population 8	Population 8	Population 11
Employees in second job	Population 9	Population 9	Population 12
Employees and Owner Managers of Incorporated Enterprises (OMIEs) in second job	Population 10	Population 10	Population 13
Trade union members in their main job	Population 11	...	Population 7 (a)
Trade union members	Population 12	...	Population 8 (a)
Persons who found their job through a labour hire firm/employment agency	Population 13	...	Population 10

... not applicable

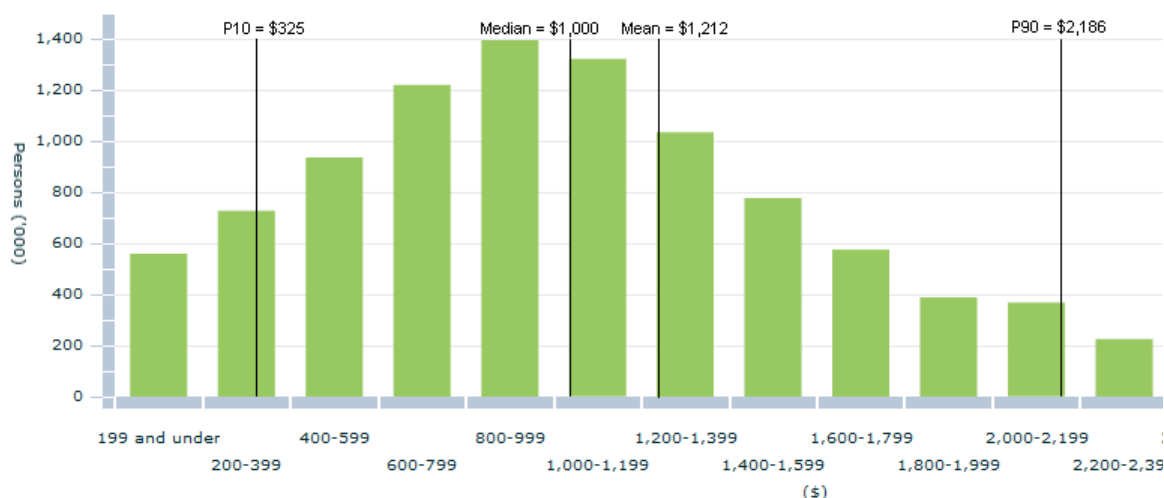
(a) From 2014 this population group includes OMUEs

## Distribution of earnings (Appendix)

### DISTRIBUTION OF EARNINGS

In August 2016, the mean weekly earnings of employees and owner managers of incorporated enterprises (OMIEs) was higher than median weekly earnings. This difference reflects the asymmetric distribution of earnings, where a relatively small number of employees and OMIEs have comparatively very high earnings. This is illustrated in the graph below.

Distribution of Weekly Earnings in Main Job for Employees & OMIEs



Weekly earnings in main job

While median and mean earnings provide useful information about earnings distributions, they do not capture all the information about the distribution. It is also useful to consider percentiles, which measure the spread of earnings across the population. For example, the 10th percentile, P10, separates the population into the bottom 10% (lowest earners) and top 90%, while P90 separates the population into the bottom 90% and the top 10% (highest earners). At August 2016, P10 for weekly earnings in main job was \$325, while P90 for weekly earnings in main job was \$2,186. (Datacube 11)

As would be expected, the distribution of weekly earnings of part-time employees and OMIEs was concentrated in lower earning groups with 57% earning under \$600 per week. For full-time employees and OMIEs, 73% earned \$1,000 or more per week. For male full-time employees and OMIEs, the mean weekly earnings in main job was \$1,602 and the median weekly earnings in main job was \$1,334. For female full-time employees and OMIEs, the mean weekly earnings in main job was \$1,339 and the median weekly earnings in main job was \$1,150. For part-time employees and OMIEs, the mean weekly earnings in main job for males was \$575 and the median weekly earnings was \$450. Whilst for females the mean weekly earnings was \$604 and the median \$517. (Datacube 11)

## Data Cubes (I-Note) - Data Cubes

## Data Quality (Technical Note) (Technical Note)

### TECHNICAL NOTE DATA QUALITY

#### INTRODUCTION

**1** Since the estimates in this publication are based on information obtained from occupants of a sample of dwellings, they are subject to sampling variability. That is, they may differ from those estimates that would have been produced if all dwellings had been included in the survey. One measure of the likely difference is given by the standard error (SE), which indicates the extent to which an estimate might have varied by chance because only a sample of dwellings was included. There are about two chances in three (67%) that a sample estimate will differ by less than one SE from the number that would have been obtained if all dwellings had been included, and about 19 chances in 20 (95%) that the difference will be less than two SEs.

**2** Another measure of the likely difference is the relative standard error (RSE), which is obtained by expressing the SE as a percentage of the estimate.

$$\text{RSE}\% = (\text{SE}/\text{estimate}) \times 100$$

**3** RSEs for Characteristics of Employment estimates have been calculated using the Jackknife method of variance estimation. This process involves the calculation of 30 'replicate' estimates based on 30 different sub-samples of the original sample. The variability of estimates obtained from these sub-samples is used to estimate the sample variability surrounding the main estimate.

**4** The Excel spreadsheets in the Downloads tab contain all the tables produced for this release and the calculated RSEs for each of the estimates. The RSEs for estimates other than medians have been calculated using the Jackknife method, and RSEs for the medians have been calculated using the Woodruff method.

**5** In the tables in this publication, only estimates (numbers, percentages, means and medians) with RSEs less than 25% are considered sufficiently reliable for most purposes. However, estimates with larger RSEs have been included. Estimates with an RSE in the range 25% to 50% should be used with caution while estimates with RSEs greater than 50% are considered too unreliable for general use. All cells in the Excel spreadsheets with RSEs greater than 25% contain a comment indicating the size of the RSE. These cells can be identified by a red indicator in the corner of the cell. The comment appears when the mouse pointer hovers over the cell.

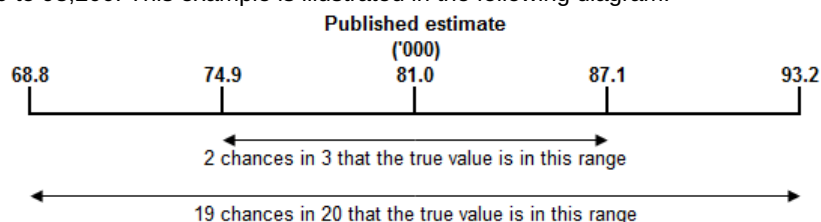
#### CALCULATION OF STANDARD ERROR

**6** RSEs are routinely presented as the measure of sampling error in this publication and related products. SEs can be calculated using the estimates (counts or means) and the corresponding RSEs.

**7** An example of the calculation of the SE from an RSE follows. Datacube 4 shows that the estimated number of males aged 55–59 years who were employed part-time was 81,000 in August 2016, and the RSE for this estimate was 7.5%. The SE is:

$$\begin{aligned} \text{SE of estimate} &= (\text{RSE} / 100) \times \text{estimate} \\ &= 0.075 \times 81,000 \\ &= 6,100 \text{ (rounded to the nearest 100)} \end{aligned}$$

**8** Therefore, there are about two chances in three that the value that would have been produced if all dwellings had been included in the survey would fall within the range 74,900 to 87,100 and about 19 chances in 20 that the value would fall within the range 68,800 to 93,200. This example is illustrated in the following diagram.



#### PROPORTIONS AND PERCENTAGES

**9** Proportions and percentages formed from the ratio of two estimates are also subject to sampling errors. The size of the

error depends on the accuracy of both the numerator and the denominator. A formula to approximate the RSEs of proportions not provided in the spreadsheets is given below. This formula is only valid when x is a subset of y.

**10** Considering Datacube 4, of the 1,532,300 males aged 25-34 years who were employed, 1,334,500 or 87.1% were full-time workers. The RSE of 1,334,500 is 1.2% and the RSE for 1,532,300 is 1.0%. Applying the above formula, the RSE for the proportion of males aged 25–34 years who were full-time workers:

$$RSE = \sqrt{(1.2)^2 - (1.0)^2} = 0.7\%$$

**11** Therefore, the SE for the proportion of males aged 25–34 years who were full-time workers was 0.6 percentage points ( $= (87.1/100) \times 0.7$ ). Therefore, there are about two chances in three that the proportion of males aged 25–34 years who were full-time workers is between 86.5% and 87.7%, and 19 chances in 20 that the proportion was within the range 85.9% to 88.3%.

## SUMS OR DIFFERENCES BETWEEN ESTIMATES

**12** Published estimates may also be used to calculate the sum of two or more estimates, or the difference between two survey estimates (of numbers, means or percentages) where these are not provided in the spreadsheets. Such estimates are also subject to sampling error.

**13** The sampling error of the difference between two estimates depends on their SEs and the relationship (correlation) between them. An approximate SE of the difference between two estimates (x–y) may be calculated by the following formula:

$$RSE\left(\frac{x}{y}\right) = \sqrt{[RSE(x)]^2 - [RSE(y)]^2}$$

**14** The sampling error of the sum of two estimates is calculated in a similar way. An approximate SE of the sum of two estimates (x+y) may be calculated by the following formula:

$$SE(x + y) = \sqrt{[RSE(x)]^2 + [RSE(y)]^2}$$

**15** Considering the example in paragraph 7, the estimated number of males aged 55–59 years who were employed part-time was 81,000, and the SE for this estimate was 6,100. From Datacube 4, the estimate of males aged 60–64 years who were employed part-time was 96,700 and the SE was 5,500. The estimate of males aged 55–64 years who were employed part-time is:

$$81,000 + 96,700 = 177,700$$

**16** The SE of the estimate of males aged 55-64 years who were employed part-time is:

$$SE = \sqrt{(6,100)^2 + (5,500)^2} = 8,200$$

**17** Therefore, there are about two chances in three that the value that would have been produced if all dwellings had been included in the survey would fall within the range 169,500 to 185,900 and about 19 chances in 20 that the value would fall within the range 161,300 to 194,100.

**18** While these formulae will only be exact for sums of, or differences between, separate and uncorrelated characteristics or subpopulations, it is expected to provide a good approximation for all sums or differences likely to be of interest in this publication.

## STANDARD ERRORS OF MEANS AND SUMS

**19** The estimates of means and sums of continuous variables are subject to sampling variability and random adjustment. As for population estimates, the variability due to sampling and random adjustment is combined into the calculated Standard Error, and the Relative Standard Error is reported. The component of variability arising from sampling is calculated using the Jackknife method.

## STANDARD ERRORS OF QUANTILES

**20** The estimates of quantiles such as medians, quartiles, quintiles and deciles are subject to sampling variability and random adjustment. As for population estimates, the variability due to sampling and random adjustment is combined into the calculated Standard Error, and the Relative Standard Error is reported. The component of variability arising from sampling is calculated using the Woodruff method. This is also true for Equal Distribution Quantiles.

## SIGNIFICANCE TESTING

**21** A statistical test for any comparisons between estimates can be performed to determine whether it is likely that there is a significant difference between two corresponding population characteristics. The standard error of the difference between two corresponding estimates (x and y) can be calculated using the formula in paragraph 9. This standard error is then used to calculate the following test statistic:

$$\left( \frac{x - y}{SE(x - y)} \right)$$

**22** If the value of this test statistic is greater than 1.96 then there is evidence, with a 95% level of confidence, of a statistically significant difference in the two populations with respect to that characteristic. Otherwise, it cannot be stated with confidence that there is a difference between the populations with respect to that characteristic.

**23** The imprecision due to sampling variability, which is measured by the SE, should not be confused with inaccuracies that may occur because of imperfections in reporting by respondents and recording by interviewers, and errors made in coding and processing data. Inaccuracies of this kind are referred to as non-sampling error, and they occur in any enumeration, whether it be a full count or sample. Every effort is made to reduce non-sampling error to a minimum by careful design of questionnaires, intensive training and supervision of interviewers, and efficient operating procedures.

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## Quality Declaration - Summary

### QUALITY DECLARATION - SUMMARY

#### INSTITUTIONAL ENVIRONMENT

For information on the institutional environment of the Australian Bureau of Statistics (ABS), including the legislative obligations of the ABS, financing and governance arrangements, and mechanisms for scrutiny of ABS operations, please see ABS Institutional Environment.

#### RELEVANCE

The 2016 Survey of Characteristics of Employment (COE) presents information about the distribution of weekly earnings in main job and all jobs, employment arrangements, trade union membership, independent contracting, fixed-term employment and working arrangements and persons who found their job through a labour hire firm or employment agency. The collection of a range of socio-demographic and labour force characteristics makes the datasets produced from the survey extremely valuable for comparing and analysing the distribution of both weekly earnings and employment benefits across different population groups. Data are used in the development and review of wages and labour market policies, and in wage negotiation processes.

#### TIMELINESS

The Characteristics of Employment survey is conducted annually in August as a supplement to the Australian Bureau of Statistics (ABS) monthly Labour Force Survey (LFS). Results from this survey are released in the publication Characteristics of Employment, Australia (cat. no. 6333.0).

#### ACCURACY

Estimates from the Characteristics of Employment Survey are subject to sampling and non-sampling errors. Relative standard error (RSE) is a measure of the size of the sampling error affecting an estimate, i.e. the error introduced by basing estimates on a sample of the population rather than the full population. Non-sampling errors are inaccuracies that occur due to imperfections in reporting by respondents and interviewers, and errors made in coding and processing data.

This publication was designed primarily to provide estimates at the Australia level. Broad estimates are available for state/territory and/or capital city/balance of state, though users should exercise caution when using estimates at this level because of the presence of high sampling errors. Relative Standard Errors for all estimates are available in the relevant Datacube. More information on Standard Errors is available in the Technical Note of this release.

To minimise the risk of identifying individuals in aggregate statistics, a technique is used in this release to randomly adjust cell values. This technique is called perturbation. Perturbation involves small random adjustment of the statistics and is considered the most satisfactory technique for avoiding the release of identifiable statistics while maximising the range of information that can be released. These adjustments have a negligible impact on the underlying pattern of the statistics. After perturbation, a given published cell value will be consistent across all tables. However, adding up cell values to derive a total will not necessarily give the same result as published totals.

For further information regarding the accuracy of the COE survey estimates see the Technical Note.

#### COHERENCE

Caution should be exercised when comparing the estimates from this release with previous similar surveys as some data items have changed and population groups are conceptually different.

Caution should be exercised when comparing results from the 2016 COE to previous Forms of Employment (FOE) (2008–2013) and Employee Earnings, Benefits and Trade Union Membership (EEBTUM) as the population Employees in



this release is not directly comparable to the Employees population in both FOE and EEBTUM.

For information on the comparability of time series for the publication Employee Earnings, Benefits and Trade Union Membership, Australia (cat. no. 6310.0), see the Explanatory Notes.

For information on the comparability of time series for the publication Forms of Employment, Australia (cat. no. 6359.0), see the Explanatory Notes.

For information on the comparability of time series for the publication Working Time Arrangements, Australia (cat. no. 6342.0), see the Explanatory Notes.

## INTERPRETABILITY

Contained within COE are Datacubes with footnoted data to aid interpretation of the results of the survey. Detailed Explanatory Notes, a Technical Note and a Glossary are also included providing information on the terminology, classifications and other technical aspects associated with these statistics.

Further commentary is often available through articles and data published in other ABS products, including:

- Australian Labour Market Statistics (cat. no. 6105.0); and
- Concepts, Sources and Methods (cat. no. 6102.0.55.001).

## DATA ACCESS

Characteristics of Employment, Australia (cat. no. 6333.0) is released electronically via the ABS website as Datacubes in spreadsheet format. Additional data may be available on request (subject to data quality). Note that detailed data can be subject to high relative standard errors. Full details of data items for this survey are available from the Downloads tabs in Datacube: COE 2016 Populations and Data items list.

For users who wish to undertake a more detailed analysis of the data, the survey microdata will be released through the TableBuilder product. For more details, refer to the TableBuilder information, Microdata, Characteristics of Employment, Australia (cat. no. 6333.0.00.001). For more information see About TableBuilder.

For further information about ABS data available on request, contact the National Information and Referral Centre on 1300 135 070 or via email to <client.services@abs.gov.au>.

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